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Subject:	Outstanding Issues Relative to the Round 2 Report
Date:	06/30/2006 06:38 PM

Last Friday we had a productive discussion about the remaining issues that need to be resolved to develop the Round 2 Report and the steps necessary to do so. This email summarizes where we are on these issues. Right now we have agreement or general agreement on most issues. However there are still three issues that will require further discussion: Consideration of a range of input parameters in the food web model (e.g., dietary composition), the list of chemicals to include in the food web model and consideration of spatial scale and variability with the food web model. It is possible that we may need a meeting to resolve these three issues or we may be able to reach agreement through smaller technical team discussions and discuss at our planned check-in on July 7th. A summary of where I think we stand on these issues is outlined below:

ERA:

Summation Rules: We agreed to look at the HHRA summation rules to determine if they are suitable for use in the Round 2 Report to look at ecological risk (See Data Summary Table). EPA provided a clarifying email regarding the summation rules on June 28, 2006. Summation rules for the initial evaluation of ecological risk will be based on a combination of comments on PRE and HHRA summation rules. EPA comments on the PRE essentially direct the LWG to utilize 1/2 the detection limit when summing chemicals and states that summing should be avoided when one chemical in the sum is much more toxic than the other chemicals unless all chemicals in the sum are assumed to be the more toxic chemical. The LWG has agreed to use 1/2 the detection limit. Some further discussion may be required due to differences in exposure areas between the human health and ecological risk approaches.

This issue is essentially resolved.

Benthic Assessment: EPA discussed the benthic risk interpretive report on June 27, 2006. EPA plans on submitting comments early next week. Although EPA comments on the benthic interpretive approach will need to be resolved prior to finalization of this method for the draft RI and risk assessment reports, the benthic assessment procedures do not need to be redone for the Round 2 report. The LRM and FPM approaches are in agreement approximately 75% if the time. The LRM and FPM approaches should be looked at as separate lines of evidence. Areas where the models are in agreement about the presence or absence of risk should be designated as such in the Round 2 Report. Areas where the models are in disagreement should be identified as indeterminate risk. Areas of indeterminate risk should be refined based on other lines of evidence. EPA has three concerns that must be addressed before utilizing the predictive benthic assessment approach in the Round 2 Report:

1) High SQV for PAHs: Due to the high SQV developed with the floating percentile method (1200 ppm), this value should not be applied. For the floating percentile method, the SQV developed for diesel represents a reasonable surrogate.
2) Elimination of the Hyalella Growth Endpoint: The floating percentile method did not consider the hyalella growth endpoint. This is acceptable as long as the logistic regression and floating percentile approaches are considered separate lines of evidence.
3) Jay Field's version of the logistic regression model: Jay Field has refined the logistic regression model beyond what was performed by the LWG. The LWG should work with Jay to apply Jay's version of the model. Jay indicates that this should be fairly straight forward and that his evaluation was performed using the Level 2 threshold (20% difference from control).

This issue is generally resolved.

Measurement Endpoint/Lines of Evidence Table, Weight of Evidence Table and Development of Initial PRGs for the Round 2 Report: Our goal is to reach agreement on the Measurement Endpoint/Lines of Evidence Table by July 17, 2006. By August 1, 2006, we need to be on the same page regarding the weighting approach. The Round 2 Report will consider all lines of evidence. However, initial PRGs will not necessarily be developed for each LOE. By mid-August, we will have a check-in regarding the LOE for which initial PRGs will be developed. EPA has distributed the Measurement Endpoint/LOE Table with its comments on the PRG TM. A draft WOE Key will be distributed for informal review by LWG technical staff (Lisa Saban and Rob Pastorok) by July 7, 2006. Initial PRGs should be developed for all LOE with the exception of the benthic community. For the benthic community, a check-in will take place by mid-August to reach agreement on the lines of evidence for which we will develop initial PRGs.

This issue is generally resolved.

TRVs: Parametrix is looking at the wildlife TRVs presented in the PRE as to there suitability for the Round 2 Report. A question has also come up regarding whether the LWG followed our direction on the aquatic TRVs in the Round 2 Report. We must reach agreement on the TRVs to be used in the Round 2 Report by July 10, 2006. At this point, EPA is generally comfortable with the aquatic TRVs. The wildlife TRVs are still under review. EPA will provide direction on TRVs by July 7, 2006.

This issue is generally resolved.

Food Web Model:

Benthic Compartments for Food Web Model: We have reached tentative agreement that we will consider three benthic compartments for the food web model: Epibenthic (crayfish), filter feeder (clam) and small detritivore. EPA's team has agreed to use three benthic compartments in the FWM.

This issue is resolved.

Modeling Language: The visual basic and excel spread sheet versions of the model seem to be producing consistent results. However, the LWG still have a couple of

questions regarding some of the parameters. We should be in agreement regarding the decision to use the VBA code by July 7, 2006. Finalization of parameters will take place of the next 6 - 8 weeks to meet the Round 2 Report schedule.

This issue is generally resolved.

Dietary Composition and Range of Input Parameters: We agreed to look at a range of dietary composition in the Round 2 Report (See Data Summary Table). This applies to the Food Web Model as well as the dietary pathway. In addition to the dietary composition, EPA would like the food web model to consider a range of values for certain parameters. These parameters include temperature, body weight, lipid content, Kow (acknowledge uncertainty surrounding these values) and Henry's law constants (temperature dependent). In addition, EPA would like the food web model to account for range of average sediment concentrations by considering, for example, upper and lower confidence intervals around the mean. It is unclear whether a range can be applied to a surface area weighted average. The LWG is willing to consider range estimates for model sensitivity but to avoid lengthy discussions regarding input parameter values.

This issue needs further discussion.

Chemical List: Nancy Judd provided a list of chemicals to be addressed by the food web model and through a BSAF approach. A conference call took place on July 26, 2006 to discuss application of BSAFs (how will they be developed?) and the footnote regarding the use of surrogates. EPA understands that BSAFs will be developed based a combination of site specific and literature values. A range of literature values will be utilized as described in the PRE. EPA discussed the list of chemicals to be modeled on June 27, 2006 and developed an expanded list of chemicals to include in the food web model. These chemicals are: dieldrin, endrin, lindane, heptaclor, hexachlorobenzene and total chlordane. The LWG agrees that in principle, it is possible to model these chemicals and has indicated that they are willing to try modeling these chemicals with the food web model but are facing time constraints associated with the Round 2 Report development schedule.

This issue needs further discussion.

Spatial Scale: Further discussion on the issue of spatial scale is required. The key questions are: How to consider scale/variability at the food web model calibration stage? How will scale/variability be addressed at the EPC development stage? How do we ensure that the model works at smaller scales if it is calibrated at larger scales? EPA discussed a number of these issues on June 27th. EPA believes that for model calibration and development of initial PRGs, the model should consider the variability in the average sediment concentrations as described above. For application of PRG, a range of PRGs should be presented with the probability that the PRG will achieve the protective fish tissue concentration described. The initial PRG should be applied on a point by point basis. A range of initial PRGs could be considered to help identify AOPCs. The LWG agrees that the model should and will consider the variability in exposure area surface weighted average concentrations for model calibration and development of initial PRGs. However, the LWG does not believe that probabilistic PRGs can be developed for the Round 2 Report due to time constraints associated with reaching agreement on probability distributions and calibration of a probabilistic model. The LWG proposes characterizing model uncertainties both qualitatively and, where possible, quantitatively and to use model

sensitivity analysis when developing PRGs. LWG agrees to apply PRGs point by point to exposure area SWACs.

This issue needs further discussion.

This list does not include some broader topics such as transition zone water because they are not critical to the Round 2 Report. If I have mischaracterized anything here or if you have any questions, please let me know.

Thanks, Eric